Processes Relevant to the Water Plan Update

Part I

CALFED Bay Delta Program Overview

(Prepared by CALFED)

Part II

Other Processes

(Prepared by DWR)

Part I

CALFED Bay-Delta Program Overview

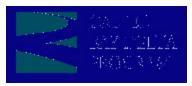
Issues for consideration in the California Water Plan Update Process

Purpose of this Presentation

- Provide background on the CALFED Process
- Describe the CALFED Bay-Delta Program Long-Term Plan
- Identify areas of commonality and and distinction with the California Water Plan Update process to prompt further discussion about program interaction

This presentation is primarily intended to familiarize the Advisory Committee with the CALFED Bay-Delta Program process and plan. With this background, it is clear that broad areas of overlap exist between the CALFED planning process and the California Water Plan Update process. There are also clear distinctions between the mission and objectives of the two processes. A secondary purpose of this presentation is to contrast the two programs to promote further discussion about how the two programs should interact.











Who Depends on the Bay-Delta



- Drinking Water for 22 Million
- 750 Plant & Animal Species
- \$27 billion Agricultural
- Industry
- · Local Homes and Infrastructure
- 80% of the State's Commercial
- Salmon Fisheries
- California's Trillion Dollar
- Economy



The San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta) estuary is the largest estuary on the West Coast. It is a maze of tributaries, sloughs, and islands and a haven for plants and wildlife, supporting over 750 plant and animal species. The Bay-Delta includes over 738,000 acres in five counties. The Bay-Delta is critical to California's economy, supplying drinking water for two-thirds of Californians and irrigation water for over 7 million acres of the most highly productive agricultural land in the world.

The Bay-Delta is also the hub of California's two largest water distribution systems - the Central Valley Project (CVP) operated by the U.S. Bureau of Reclamation (Reclamation) and the State Water Project (SWP) operated by the California Department of Water Resources (DWR). Together, these water development projects divert about 20 to 70 percent of the natural flow in the system depending on the amount of runoff available in a given year.

Early in the Program development, CALFED Agencies developed and adopted a mission statement, objectives and solution principles (below) to guide how the Program will be implemented. CALFED used these to shape the alternatives considered in programmatic level studies and will continue to use these objectives and principles as actions are implemented. Carrying out the mission, achieving the objectives, and adhering to the solution principles will ensure that CALFED fulfills its commitment to continuous improvement in all of the four problem areas.

Mission Statement

The mission of the CALFED Bay-Delta
Program is to develop and implement a
long-term comprehensive plan that will
restore ecological health and improve
water management for beneficial uses of
the Bay-Delta System.



Bay-Delta Problem Areas



Water Supply



Habitat Degradation

Water Quality







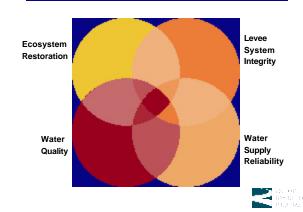


Solution Principles

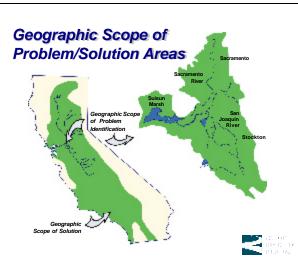
- · Reduce Conflicts in the System
- Be Equitable
- · Be Affordable
- Be Durable
- Be Implementable
- Pose No Significant Redirected Impacts



Problems are Interrelated



The CALFED Plan takes a broad approach to addressing the four problem areas of water quality, ecosystem quality, water supply reliability and levee system integrity, recognizing that many of the problems and solutions in the Bay-Delta system are interrelated. Problems in any one program area cannot be solved effectively without addressing problems in all four areas at once. This greatly increases the scope of efforts but will ultimately result in progress toward a lasting solution. Thus, the single most important difference between the CALFED Bay-Delta Program and past efforts to solve the problems of the Bay-Delta is the comprehensive nature of CALFED's interrelated resource management strategies. A comprehensive CALFED solution will also be supported by governance mechanisms that overcome problemspecific or resource-specific limitations of previous, more narrowly focused, approaches.



While resource conflicts are most evident in the Bay-Delta region, potential solutions to these conflicts extend into the entire Central Valley watershed and service areas of the CVP and SWP.

CALFED Implementation MOU Federal Signatory Agencies

- · Department of Interior
- · Department of Agriculture
- · Fish and Wildlife Service
- Bureau of Reclamation
- · Geological Survey
- · Bureau of Land Management
- · Environmental Protection Agency
- Army Corps of Engineers
- · Natural Resources Conservation Service
- Forest Service
- · National Marine Fisheries Service
- Western Area Power Area Administration



The CALFED Bay-Delta Program is a cooperative, interagency effort of over 20 State and Federal agencies with management or regulatory responsibilities for the Bay-Delta.

CALFED Implementation MOU State Signatory Agencies

- Resources Agency
- Department of Water Resources
- Department of Fish and Game
- California Environmental Protection Agency
- State Water Resources Control Board
- · Department of Food and Agriculture
- · Reclamation Board
- Department of Health Services

The CALFED Program is a collaborative effort including representatives of agricultural, urban, environmental, fishery, and business interests, Indian tribes and rural counties who have contributed to the process.



This section will describe CALFED's long-term plan as described in the August 2000 Record of Decision.

CALFED Bay-Delta **Program Plan**

Program Components

The CALFED Plan is composed of the following components:

- Governance
- Ecosystem Restoration
- Watersheds
- Water Supply Reliability Water Quality
- Storage
- Conveyance
- Environmental Water Account
- · Water Use Efficiency (conservation and recycling)
- · Water Transfers
- Levees
- Science



Following issuance of the Record of Decision, CALFED Agencies have proceeded to Stage 1 implementation. Stage 1 covers the first seven years of a 30-year program and builds the foundation for long-term actions. The ROD sets out actions included in the Preferred Program Alternative for implementing Stage 1. These actions, categorized into the 12 program components described here, also depend upon subsequent project-specific environmental analyses as well as on subsequent review of financial and legislative proposals in this document by the State and Federal executive branches, Congress and the State Legislature.

All aspects of the CALFED Program are interrelated and interdependent. Ecosystem restoration is dependent upon water supply and conservation. Water supply depends upon water use efficiency and consistency in regulation. Water quality depends upon improved conveyance, levee stability and healthy watersheds. The success of all of the elements depends upon expanded and more strategically managed storage.

Governance

- Support legislation to create a joint state/federal oversight commission
- Perform review and report to Governor, Secretary of Interior, Legislature, and Congress each year
- Annual determination regarding schedule and funding availability by Governor or Secretary of Interior



Through five years of planning, the CALFED *process* for implementing the Program has assumed an importance virtually equal to the CALFED *actions*. Stakeholders often raise concerns about their role in implementation or about how a particular action will be implemented.

The CALFED Agencies have executed a memorandum of understanding that establishes the process for governing implementation of the CALFED Program until the Legislature and Congress establish a new governing structure. The Implementation MOU does not create a new entity or modify existing agency authority. Instead, it identifies the agencies that will lead implementation of each Program element and establishes the CALFED Policy Group as the oversight and coordination body for CALFED implementation. CALFED Agencies will work with the State Legislature and the Congress to develop legislation for a permanent joint Federal-State commission with shared power to appoint commission members. This approach will require resolution of Federal Constitutional concerns. The new commission would provide direction and oversight in implementing the long-term plan. A joint commission made up of highlevel appointees would maintain visibility inside and outside the government, assure agency coordination, help secure funding, and provide policy leadership and accountability.

Ecosystem Restoration Program

Invest over \$1 billion in Stage 1

- Comprehensive effort to restore the ecological health of the Bay-Delta ecosystem
- · Largest, most complex restoration effort ever

The goal of the Ecosystem Restoration Program is to improve and increase aquatic and terrestrial habitats and improve ecological functions in the Bay-Delta system to support sustainable populations of diverse and valuable plant and animal species. In addition, the Ecosystem Restoration Program, along with the water management strategy, is designed to achieve or contribute to the recovery of listed species found in the Bay-Delta and thus achieve goals of the Multi-Species Conservation Strategy (MSCS).

Improvements in ecosystem health will reduce the conflict between environmental water use and other beneficial uses, and allow more flexibility in water management decisions.



Watersheds

Invest \$300 million in Stage 1

 Promote locally-led watershed management with benefits for flood management, ecosystem restoration, water quality improvement, and water supply reliability The goal of the CALFED Watershed Program is to promote locally led watershed management activities and protections that contribute to the achievement of CALFED goals for ecosystem restoration, water quality improvement, and water supply reliability. The Program will accomplish these tasks by providing financial and technical assistance to local community watershed programs.



Water Supply Reliability

- · Delineate existing regulatory baseline
- Establish Environmental Water Account (EWA) with an average of 380,000 acre-feet annually for four years to augment regulatory baseline
- Seek approval of Joint Point of Diversion and share the water between CVP and EWA
- Implement conjunctive use projects, conservation measures, transfer improvements, and new surface storage projects

One of the primary goals of CALFED is to improve the reliability of California's water supply within the context of unpredictable hydrology and the competing needs of fish and wildlife and water users. In addition to hydrology, actions taken in Stage 1 assume that water supply reliability is predicated upon the following factors:

- C Clear and consistent implementation of all regulatory decisions and project operations. C Flexibility, water use efficiency and interagency cooperation to avoid water supply/fish/water quality conflicts where possible.
- C Investment in infrastructure to improve storage and conveyance capacity.



Storage

Invest approximately \$1.4 billion during Stage 1:

- Expand surface storage by up to 950,000 acre-feet
- Evaluate other potential storage projects
- Expand locally-managed groundwater storage by 500,000 to 1 million acre-feet



Groundwater and surface water storage can be used to improve water supply reliability, provide water for the environment at times when it is needed most, provide flows timed to maintain water quality, and protect levees through coordinated operation with existing flood control reservoirs.

Decisions to construct groundwater or surface water storage will be predicated on compliance with all environmental review and permitting requirements, and maintaining balanced implementation of all Program elements. Subject to these conditions, new groundwater and surface water storage will be developed and constructed, together with aggressive implementation of water conservation, recycling, an improved water transfer market, and habitat restoration, as appropriate to meet CALFED Program goals. During Stage 1 CALFED will continue to evaluate surface water and groundwater storage, identify acceptable project-specific locations, and initiate permitting, NEPA and CEQA documentation, and construction if all conditions are satisfied. The total volume of new or expanded surface water and groundwater storage evaluated in the Final Programmatic EIS/EIR ranges up to 6 million acre feet, and surface storage facility locations being considered are located in the Sacramento and San Joaquin Valley and in the Delta. Those surface storage sites that will be pursued in Stage 1 are discussed in Section 2.2.5. New groundwater programs could be implemented statewide.

Storage (continued)

- Develop approximately 250,000 acre-feet of in-Delta storage
- Expand CVP storage in Shasta Lake by about 300.000 acre-feet
- Expand Los Vaqueros Reservoir by up to 400,000 acre-feet with local partners
- Construct a San Luis Reservoir bypass for the San Felipe Unit
- Proceed with evaluation of Sites Reservoir with local partners
- Proceed with evaluation of additional storage in the upper San Joaquin River watershed (Millerton enlargement or functional equivalent)



The Final Programmatic EIS/EIR identified 12 potential surface reservoir sites and many possible groundwater storage sites. Based upon the work of the Integrated Storage Investigation and previous studies, DWR and Reclamation will work with other CALFED Agencies to take the necessary steps to pursue expansion of two existing reservoirs and construction of a new offstream reservoir, with a combined capacity of 950 TAF and a major expansion of groundwater storage for an additional 500 TAF to 1 MAF. DWR and Reclamation will also study two potential storage projects through partnerships with local agencies. However, these two additional sites will require substantial technical work and further environmental review and development of costsharing agreements before decisions to pursue them as part of the CALFED Program.

Storage (continued)

- Develop locally controlled groundwater projects with a total of 500,000 to 1 million acre-feet of additional storage capacity
- Encourage basin-wide groundwater management planning, and condition future state funding for water programs on the development of local groundwater management plans



Conveyance

North Delta:

- Evaluate and improve operations of the Delta Cross Channel to address fishery and water quality concerns
- Simultaneously evaluate a screened through-Delta facility on the Sacramento of up to 4.000 cfs
- Design and construct floodway improvements on the Mokelumne River to provide flood control and ecosystem benefits



The Preferred Program Alternative employs a through-Delta approach to conveyance. Modifications in the Delta conveyance will result in improved water supply reliability, protection and improvement of Delta water quality, improvements in ecosystem health, and reduced risk of supply disruption due to catastrophic breaching of Delta levees.

Conveyance (continued)

South Delta:

- Allow SWP to increase pumping from 6,680 cfs to 8,500 cfs, and eventually to 10,300 cfs
- Provide new fish screens for SWP and CVP facilities
- Dredge and install operable barriers to improve water flow and quality in the South Delta
- Design and construct floodway improvements on the Lower San Joaquin River to provide flood control and ecosystem benefits

The CALFED Agencies intend for these actions in the South Delta to address the needs of the export projects, the Delta ecosystem and local, in-Delta agricultural water users. These components will go forward following the completion of project-specific environmental review and permitting. DWR will lead the CALFED Agencies in implementing these south Delta actions. Environmental review will be completed by the end of 2002. These actions, related to providing for more reliable long-term export capability by the SWP and CVP and protection of local diversions in the Delta, are in addition to historic and current efforts (including annual installation of temporary barriers as well as current year local dredging and diversion improvements).

Water Use Efficiency

Invest approximately \$1 billion during the first four years

- Build on the efforts of the Agricultural Water Management Council and the Urban Water Conservation Council
- Use a competitive grant/loan incentive program to assure cost effective investments
- Re-evaluate progress in four years



The Water Use Efficiency Program includes actions to assure efficient use of existing and any new water supplies developed by the Program. Efficiency actions can alter the pattern of water diversions and reduce the magnitude of diversions, providing ecosystem benefits. Efficiency actions can also result in reduced discharge of effluent or drainage, improving water quality.

The Water Use Efficiency Program will build on the work of the existing Agricultural Water Management Council and California Urban Water Conservation Council process, supporting and supplementing those processes through planning and technical assistance and through targeted financial incentives (both loans and grants).

The Water Use Efficiency Program has identified potential recovery of currently irrecoverable water losses of over 1.4 million acre-feet of water annually by 2020 as a result of CALFED actions. Early in Stage 1, CALFED will identify measurable goals and objectives for its urban and agricultural water conservation program, water reclamation programs and managed wetlands programs.

Water Quality

Invest approximately \$950 million in Stage 1

- Capture more drinking water during periods of high Delta water quality
- Evaluate alternative drinking water treatment technologies
- Enable purchases or exchanges of high quality source waters for drinking water
- Reduce levels of contaminants (heavy metals, pesticides, pathogens, salinity) through improved source control



The CALFED Program is committed to achieving continuous improvement in the quality of the waters of the Bay-Delta system with the goal of minimizing ecological, drinking water and other water quality problems. Improvements in water quality will result in improved ecosystem health, with indirect improvements in water supply reliability. Improvements in water quality also increase the utility of water, making it suitable for more uses and reuses.

Water Transfers

- Increase the availability of existing facilities for transfers
- Develop streamlined approval process for certain kinds of transfers (intra-regional, shortterm, and dry year)

The Water Transfer Program proposes a framework of actions, policies, and processes that, collectively, will facilitate water transfers and the further development of a state-wide water transfer market. The framework also includes mechanisms to help provide protection from third party impacts. A transfers market can improve water availability for all types of uses, including the environment. Transfers can also help to match water demand with water sources of the appropriate quality, thus increasing the utility of water supplies.



Delta Levees

Invest approximately \$450 million in Stage 1

- Provide funding to help local reclamation districts reconstruct levees to base level of protection
- Enhance stability of selected, critical levees
- Develop Best Management Practices to control and reverse Delta island subsidence
- Refine Delta Emergency Management Plan and develop a Delta Risk Management Strategy



The focus of the Levee System Integrity Program is to improve levee stability to benefit all users of Delta water and land. Actions described in this program element protect water supply reliability by maintaining levee and channel integrity. Levee actions will be designed to provide simultaneous improvement in habitat quality (consistent with the Ecosystem Restoration Program goals), which will indirectly improve water supply reliability. Levee actions also protect water quality, particularly during low flow conditions when a catastrophic levee breach would draw salt water into the Delta.

Science

- Appoint science leader and expert panel(s)
- Implement Comprehensive Monitoring, Assessment and Research Program to inform and guide adaptive management

This ROD establishes the CALFED Science Program, which will bring world-class science to all elements of the program; ecosystem restoration, water supply reliability, water use efficiency and conservation, water quality, and flood management (e.g., levee stability). Performance measures and indicators for each program element will track progress. The purpose of the CALFED Science Program is to provide a comprehensive framework and develop new information and scientific interpretations necessary to implement, monitor, and evaluate the success of the CALFED Program (including all program components), and to communicate to managers and the public the state of knowledge of issues critical to achieving CALFED goals.



CALFED Bay-Delta Program and the California Water Plan Update

Commonalties and Distinctions

This section will describe some commonalties and distinctions between CALFED's long-term plan and the California Water Plan Update process. These observations are intended to prompt discussion about how these two efforts should interact.

Commonalties and Distinctions

- · Scope of Mission
- Charge
- Program Management
- Planning Horizon
- Geographic Scope

Points of interest that might be used to compare and contrast the CALFED Bay-Delta Program and the California Water Plan Update include: scope of mission, charge, program management, planning horizon, and geographic scope.

Scope of Mission

CALFED:

 Focused on balancing ecosystem restoration and water management needs dependent on the Bay-Delta system.

California Water Plan Update:

 Focused on evaluating existing and projected statewide water needs, and formulating a plan to meet those needs. While the CALFED Bay-Delta program and the California Water Plan Update must consider many of the same issues to complete their missions, the two programs start from different places. CALFED was initiated to develop and implement a plan to reduce resource conflicts in the Bay-Delta system. As such, the program has sought to balance ecosystem restoration and water management needs. While the California Water Plan Update will also consider ecosystem restoration needs, the process was born from a need to consider future statewide water management needs and develop a plan to provide for them.

CALFED's ROD states:

"Consistent with the stated purposes of the CALFED Bay-Delta Program since its outset in 1995, it is not the intent of this program to address or solve all of the water supply problems in California. The CALFED Program is directly or indirectly tied to a number of specific project proposals that would help toward meeting California's water needs for a wide variety of beneficial uses. CALFED is an important piece of a much larger picture that is the continuing responsibility of local, regional, State and Federal jurisdictions."

Charge

CALFED:

 CALFED agencies are charged with developing and implementing a long-term plan, including coordination of ongoing complimentary actions under CALFED agency management.

California Water Plan Update:

 Long-term planning effort only. Implementation of the plan would occur incrementally through subsequent efforts. The CALFED process is intended as a planning and implementation effort. The California Water Plan Update has traditionally been a planning effort used to guide implementation of water management projects through other efforts.

Program Management

CALFED:

 Over 20 State and Federal agencies co-manage the CALFED process, with ultimate direction provided from the Governor of California and the United States Secretary of the Interior.

California Water Plan Update:

 Managed by the California Department of Water Resources under the direction of the Resources Agency and Governor of California. Federal agencies are participants in the advisory process. The CALFED process is co-managed by a broad group of both State and federal agencies, under the direction of the Governor of California and the United States Secretary of Interior. The California Water Plan Update is managed by the California Department of Water Resources under the direction of the Resources Agency and Governor of California. Federal agencies are participants in the advisory process. Both efforts include broad outreach programs to local agencies and interest group representatives and Indian tribes.

Planning Horizon

CALFED:

 30 year plan featuring adaptive management with particular focus on specific actions for first 7 years.

California Water Plan Update:

 Past Updates have used a variety of planning horizons. CALFED's plan is intended to be implemented over a period of about 30 years, with the principles of adaptive management and balanced implementation used to guide actions in later years. The CALFED Plan includes a more detailed description of actions to be completed in Stage 1 -- the first 7 years of implementation. Different planning horizons have been used in past California Water Plan Updates, with about 30 years generally used as the outward time scale.

Geographic Scope

CALFED:

 Focused on solutions within the Central Valley watershed and service areas of the CVP and SWP

California Water Plan Update:

• Statewide planning effort

CALFED's solution area includes the watershed area tributary to the Delta and other regions that rely, at least in part, on Delta water supplies. The California Water Plan Update considers statewide water management needs.

Program Coordination

What can CALFED provide to the CWPU process?

- A framework for evaluating potential water management actions, including objectives and performance measures with significant stakeholder buv-in.
- Substantial agreement on balanced set of actions for first 7 years.
- Technical information on potential water management tools

The CALFED effort has resulted in both new processes and technical information that can benefit the California Water Plan Update. One CALFED effort of particular relevance to the Water Plan Update is the Water Management Strategy Evaluation Framework. CALFED continues to refine this evaluation framework with the objectives of: 1) documenting a comprehensive hierarchy of objectives for the CALFED Program, 2) establishing well-defined measures of performance associated with the achievement of objectives, and 3) providing a basis for comparison of alternative long-term water management strategies.

Program Coordination

What can the CWPU process provide to CALFED?

- Information on the statewide implications of CALFED's Stage 1 actions.
- Input on future decisions regarding water management actions within CALFED's sphere of influence. This includes actions currently under evaluation and actions that will be considered beyond Stage 1.

Planning conducted through the California Water Plan Update process can help in future refinement of CALFED's Water Management Strategy and aid future CALFED decisions on investments in various water management tools.

Part II Partial List of Other Processes

- · Colorado River Water Use Plan
- AB 3030 GW Management Plans
- FERC Relicensing
- · Integrated Resources Development Plans
- Agricultural Water Management Council Management Plan
- Urban Water Management Council Management Plan
- State Water Resources Control Board Phase 8 Hearings (Modification of D-1641)
- Central Valley Habitat Joint Venture Plan
- · California Drought Contingency Plan

California Water Plan - Update 2003 Processes Relevant to the Water Plan Update

Lead Agencies: Colorado River Board Goal: Improve Colorado River operations to help California manage it's 4.4 MAF allocation through such actions as: - Cooperative water conservation/transfers Colorado River - Quantification of an agreement - Water storage and conjunctive use programs Water use Plan **Lead Agencies:** Water Management Agencies **Goal**: Develop and implement groundwater management plans on a voluntary basis under the 12 specific criteria: (1) Control of saline water intrusion AB 3030 (2) Identification and management of wellhead protection and recharge areas **Groundwater Management Plans** (3) Regulation of the migration of contaminated groundwater (4) Mitigation of overdraft conditions (5) Replenishment of groundwater extracted by water producers (6) Administration of well abandonment and destruction programs (7) Monitoring of groundwater levels and storage (8) Identification of well constriction policies (9) Construction and operation of GW cleanup recharge, storage, conservation recycling, and extraction projects (10) Development of relationships with state and federal agencies (11) Review land use plans and coordinate land use planning to assess activities which create risk of groundwater contamination (12) Facilitating conjunctive use operations

	Lead Agency: Federal Energy Regulatory Commission
	Goal: Relicensing of existing hydroelectric facilities. Can involve considerations such as reservoir reoperation, power management and CEQA/NEPA compliance.
FERC Relicensing	
	Lead Agency: Metropolitan Water District of Southern California
	Goal : Recommend system improvement alternatives based on supply, demand, water quality, system reliability and overall planning goals.
Integrated Resources Development Plans	
	Lead Agencies: Agricultural Water Suppliers
	Goal : Oversee implementation of agricultural Efficient Water Management Practices (EWMP) for water conservation.
California	
Ag Water Management	
Council	

California Urban Water Conservation Council	Lead Agency: Local water agencies and environmental groups. Goal: Ongoing review of urban Best Management Practices (BMPs) and potential BMPs for urban water conservation.
State Water Resources Control Board Phase 8 Hearings (Modification of D-1641)	Lead Agency: State Water Resources Control Board Goal: Determine the responsibility of water users to meet the objectives in the 1995 Bay-Delta Plan in order to protect the beneficial uses of water in the Bay-Delta Estuary.
Central Valley Habitat Joint Venture Plan	Lead Agencies: U.S. Bureau of Reclamation and U.S. Fish and Wildlife Service. Goals: Protect 80,000 acres of existing wetland and establish 120,000 acres of new wetlands; improve habitat on existing public and private wetlands and agricultural lands; and secure quality water and affordable power supplies for protected wetlands.

California Drought Contingency Plan	Lead Agency: Governor's Advisory Drought Planning Panel Goals: Develop a contingency plan for reducing impacts of critical water shortages per the CALFED August Record of Decision.